

REMARKS/ARGUMENTS

The final Office Action of July 6, 2011, has been reviewed and these remarks are responsive thereto. Claims 1, 17, 31, and 64 have been amended, and claims 58, 61, 77, and 78 have been canceled without prejudice or disclaimer. No new matter has been introduced. Claims 1, 17, 31, 52-57, 59-60, 62-64, 67, 70, and 73-76 are pending in this application upon entry of the present amendment. Reconsideration and allowance of the instant application are respectfully requested.

Rejections Under 35 U.S.C. § 101

Claims 31 and 64 stand rejected under 35 U.S.C. § 101, as allegedly being directed to non-statutory subject matter. Specifically, the Office Action alleges that the “memory storing computer-executable instructions” recited in the rejected claims encompasses non-statutory transitory propagating signals. *See* Office Action, p. 4. Notwithstanding the merits of this rejection, in order to expedite prosecution, Applicants have amended independent claim 31 to recite, “[a]t least one non-transitory computer-readable media storing computer-executable instructions,” and thus claim 31 does not include transitory propagating signals. Dependent claim 64 has been correspondingly amended. Therefore, Applicants respectfully request that the rejections under 35 U.S.C. § 101 be withdrawn.

Rejections Under 35 U.S.C. § 103

Claims 1, 17, 31, 53, 55-64, 73, 74, 77, and 78 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent No. 6,405,371(Oosterhout), in view of U.S. Patent No. 6,094,237 (Hashimoto). Claims 52 and 54 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Oosterhout, in view of Hashimoto, and further in view of U.S. Patent No. 6,549,643 (Toklu). Claims 67 and 70 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Oosterhout, in view of Hashimoto, and further in view of U.S. Patent No. 5,883,640 (Hsieh). Claims 75 and 76 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Oosterhout, in view of Hashimoto, and further in view of U.S. Patent No. 6,057,884 (Chen). Applicants respectfully traverse these rejections for at least the following reasons.

Amended claim 1 recites, *inter alia*,

receiving a user selection via the EPG of a first video programming channel to be displayed in a graphical representation of a polyhedron in the EPG display; [and]

in response to the user selection of the first video programming channel, decoding a first reduced resolution video stream corresponding to the first selected video programming channel ... ;

None of Oosterhout, Hashimoto, or any of the other cited references, alone or in combination, teaches or suggests receiving or processing a user selection via an electronic programming guide (EPG) of a programming channel to be displayed in a graphical representation of a polyhedron in the EPG display, as recited in claim 1. For example, Oosterhout describes a mosaic of different programming channel images (FIGS. 2, 4, and 5-9), and Hashimoto describes a spherical rotating multi-channel selector showing different channel images on different faces of the sphere (FIGS. 3, 5, 8, 9, and 11). However, neither Oosterhout nor Hashimoto allows “a user selection via the EPG” by which users can select the channels displayed in their respective mosaics / spheres. To the contrary, in Oosterhout and Hashimoto, the programming channels used in the mosaics or spheres are predetermined by the head-end and/or receiver to include all of the available channels. *See, e.g.*, Oosterhout, col. 2 lines 1-12, col. 5, lines 24-36; Hashimoto, col. 6, lines 13-36. Thus, neither Oosterhout nor Hashimoto, alone or in combination, teaches or suggests “receiving a user selection via the EPG of a first video programming channel to be displayed in a graphical representation of a polyhedron in the EPG display,” or “in response to the user selection of the first video programming channel, decoding a first reduced resolution video stream corresponding to the first selected video programming channel,” as recited in amended claim 1.

As described in the background section of the applicants’ disclosure, there are several potential problems with conventional systems, such as Oosterhout and Hashimoto, which do not allow users to select the channels displayed in multi-channel “thumbnail” displays. *See, e.g.*, Specification, para. [0014]. For example, “[b]ecause the fixed array of thumbnails [in a conventional system] is encapsulated using standard video transport protocols, there is no way to identify the content of each individual thumbnail. Consequently, all of the thumbnails

represented in the fixed array must be displayed on the preview channel as a predetermined mosaic of live thumbnail streams.” *Id.*

Accordingly, claim 1 has been further amended to recite receiving a plurality of reduced resolution video streams corresponding to video programming channels, “wherein each of said plurality of reduced resolution video streams is encapsulated with an identifying header,” and further recites “using a first identifying header encapsulated with the first reduced resolution video stream” for decoding the video stream of the selected channel. As described in the applicants’ specification:

“The identifying header provides the information necessary for making a program or channel selection via the image-oriented EPG system 200, thereby allowing the viewer to select which programs or channels are viewed from the enhanced preview channel rather than being restricted to viewing only a predefined mosaic of thumbnail previews such as those available from prior art preview channels.”

Specification, para. [0052]. Neither Oosterhout nor Hashimoto, alone or in combination, teaches or suggests transmitting or receiving a plurality of reduced resolution video streams “wherein each of said plurality of reduced resolution video streams is encapsulated with an identifying header,” or decoding the video stream of the user-selected channel “using a first identifying header encapsulated with the first reduced resolution video stream.”

For all of the above reasons, amended claim 1 is not obvious over the alleged combination of Oosterhout and Hashimoto. Independent claims 17 and 31 have been similarly amended and are not obvious over the cited references for the same reasons as claim 1. Further, none of the prior art of record cures the deficiencies of the Oosterhout and Hashimoto discussed above, and therefore independent claims 1, 17, and 31 are allowable over the prior art.

Dependent claims 52-57, 59-60, 62-64, 67, 70, and 73-76 are allowable over the prior art of record for at least the same reasons as independent claims 1, 17, and 31, as well as based on the additional features recited therein. The addition of any of Toklu, Hsieh or Chen, alone or in combination, fails to cure the deficiencies of Oosterhout and Hashimoto with respect to claims 1, 17, and 31.

For example, dependent claims 57 and 60 each recite, *inter alia*, “wherein each of the different video channels corresponding to the different sides of the polyhedron is a video channel

selected by a user for displaying on the polyhedron.” As discussed above, neither Oosterhout nor Hashimoto teaches or suggests users selecting a plurality of video channels for different sides of a polyhedron in an EPG display. Accordingly, claims 57 and 60 are not obvious over the cited references for at least these additional reasons.

Additionally, dependent claims 62-64 each recite receiving a user command to move or resize the displayed graphical representation of the polyhedron, and in response, performing at least one of: “moving the graphical representation of the polyhedron to a different one of the individual image areas in the [EPG display]” and “changing the size of the graphical representation of the polyhedron within the [EPG display].” The Office Action alleges that Hashimoto teaches these features at FIG. 8 and col. 8, lines 36-64. *See* Office Action, p. 11. However, the relied-upon portions of Hashimoto only show that Hashimoto’s sphere can be rotated to display different faces having different channel images. *See* Hashimoto, col. 8, lines 36-38 (“FIG. 8 shows the evolution of rotation of the multi-channel selector displayed on display unit 12 when it rotates 90° upward.”) Merely rotating a spherical object does not move the object to a different area of the EPG display, nor does it change the size of the object, as recited in the claims. Accordingly, Hashimoto does not teach or suggest, “moving the graphical representation of the polyhedron to a different one of the individual image areas in the [EPG display]” or “changing the size of the graphical representation of the polyhedron within the [EPG display].” Claims 62-64 are not obvious over the cited references for at least these additional reasons.

Additionally, claims 73 and 74 each recite, “wherein binding the first reduced resolution video stream to the surface of the graphical representation of the polyhedron comprises using a 3D graphics pipeline.” *See* Office Action, p. 12. The Office Action alleges that Hashimoto teaches using a 3D graphic pipeline to perform binding a reduced resolution video stream to the surface of a polyhedron at FIG. 4 and col. 7, lines 36-63. To the contrary, Hashimoto never mentions a “3D graphics pipeline,” or any equivalent concept. Rather, Hashimoto uses conventional pixel-by-pixel processing to render its channel images. *See* Hashimoto col. 7, lines 45-57. Accordingly, claims 73-74 are not obvious over the cited references for at least these additional reasons.

CONCLUSION

Based on the foregoing, Applicants respectfully submit that the application is in condition for allowance and a Notice to that effect is earnestly solicited. Should the Examiner believe that anything further is desirable in order to place the application in even better form for allowance, the Examiner is respectfully urged to contact Applicants' undersigned representative at the below-listed number.

Respectfully submitted,
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